

What is claimed is:

1. A float type steam trap comprising:

a casing having a float chamber and formed with an inflow port and an outflowport communicating with said float chamber;

a float provided in said float chamber so as to be capable of being moved up and down;

a valve seat communicating with said outflow port in said float chamber; and

a valve element, which slides with respect to said valve seat in association with the up-and-down movement of said float so as to be able to open and close said valve seat, provided on said float, wherein

said valve seat and said valve element are formed of a material having different wear resistance.

2. The float type steam trap according to claim 1, wherein said valve seat has a valve seat seal face provided so as to communicate with said outflow port and protrude into said float chamber, an edge of said valve seat seal face having a right angle or acute angle in cross section; and said valve element is formed of a material having lower wear resistance than said valve seat, and has a valve element seal face which slides with respect to said valve seat seal face in association with the up-and-down movement of said float so as to be able to open and close said valve seat.

3. The float type steam trap according to claim 2, wherein said valve seat has a valve seat seal face provided so as to communicate with said outflow port and protrude into said float chamber, an edge of said valve seat seal face having a right angle or acute angle in cross section; and said valve element is formed of a material having lower wear resistance than said valve seat, has a valve element seal face which slides with respect to said valve seat seal face in association with the up-and-down movement of said float so as to be able to open and close said valve seat, and is provided on said float so that when sliding with respect to said valve seat seal face, said valve element swayingly moves in the direction perpendicular to said valve seat seal face so that said valve element seal face can be brought into contact with said edge.

4. The float type steam trap according to claim 1, 2 or 3, wherein said valve seat is formed of stainless steel or other metals or ceramics, and said valve element is formed of carbon or stainless steel or other metals having lower wear resistance than said valve seat; and when either one of said valve seat and said valve element is formed of stainless steel or other metals, the other is formed of ceramics or carbon.

5. The float type steam trap according to claim 1, wherein said valve seat has a valve seat seal face provided so as to communicate with said outflow port and protrude into said float chamber; and said valve element is formed of a material having

higher wear resistance than said valve seat, and has a valve element seal face which slides with respect to said valve seat seal face in association with the up-and-down movement of said float so as to be able to open and close said valve seat, an edge of said valve element seal face having a right angle or acute angle in cross section.

6. The float type steam trap according to claim 5, wherein said valve seat has a valve seat seal face provided so as to communicate with said outflow port and protrude into said float chamber; and said valve element is formed of a material having higher wear resistance than said valve seat, has a valve element seal face which slides with respect to said valve seat seal face in association with the up-and-down movement of said float so as to be able to open and close said valve seat, an edge of said valve element seal face having a right angle or acute angle in cross section, and is provided on said float so that when sliding with respect to said valve seat seal face, said valve element swayingly moves in the direction perpendicular to said valve seat seal face so that said edge can be brought into contact with said valve seat seal face.

7. The float type steam trap according to claim 1, 5 or 6, wherein said valve element is formed of stainless steel or other metals or ceramics, and said valve seat is formed of carbon or stainless steel or other metals having lower wear resistance than said valve element; and when either one of

said valve element and said valve seat is formed of stainless steel or other metals, the other is formed of ceramics or carbon.

8. The float type steam trap according to any one of claims 1 to 7, wherein the seal faces of said valve seat and said valve element have a curved shape protruding from the periphery in the direction opposed to each other, and the periphery is inclined in a tapered shape.

9. The float type steam trap according to claim 8, wherein said steam trap further comprises a holder, said holder having a flow path communicating with said outflow port therein and being fixed to said casing in said float chamber, and said valve seat being provided on said holder so as to communicate with said flow path; and said float has a float body and a lever, said valve element being provided on said lever, and one end of said lever being fixed to said float body and the other end being supported by said holder so as to be turnable in such a manner that said valve element slides with respect to said valve seat in association with the up-and-down movement of said float body so as to be able to open and close said valve seat.

10. The float type steam trap according to claim 9, wherein said holder has a plurality of valve seats on one side; a plurality of said valve elements are provided on said lever so as to correspond to each of said valve seats; and the other

end of said lever is supported by said holder so as to be turnable in such a manner that each of said valve elements slides with respect to each of said valve seats in association with the up-and-down movement of said float body so as to be able to open and close each of said valve seats.

11. The float type steam trap according to claim 8, 9 or 10, wherein said valve element is provided on said float so as to be turnable around an axis perpendicular to the sliding direction, and when said valve element closes said valve seat, the turning center of said valve element and the center of an opening of said valve seat shift from each other.

12. The float type steam trap according to claim 8, 9, 10 or 11, wherein said steam trap has a plug member that is replaceable with said valve seat.

13. The float type steam trap according to claim 9, 10, 11 or 12, wherein said casing is capable of being opened and closed, and said holder is fixed to said casing detachably.